

# Combating the Threat of Antibiotic-Resistant Gonorrhea

Antibiotic resistance is the ability of bacteria to resist the effects of drug treatment. Simply put, germs continue to multiply because the drugs cannot kill them. For more than 30 years, the U.S. Centers for Disease Control and Prevention (CDC) has monitored antibiotic-resistant gonorrhea trends to help ensure that the recommended drug treatment for gonorrhea is working. Through the National Strategy to Combat Antibiotic-Resistant Bacteria (CARB)—we arm state and local health departments with tools to stay a step ahead of resistant gonorrhea—one of the nation's most urgent public health threats. We also work together with health departments to enhance their capacity to monitor and test for resistant gonorrhea and develop rapid response strategies if resistance is detected. Following is a brief overview of current activities.

## Antimicrobial Regional Laboratory Network (ARLN)



The Antimicrobial Regional Laboratory Network is a network of regional public health laboratories equipped to respond to emerging health threats and provide cutting-edge antimicrobial resistance laboratory support. Since gonorrhea is an important part of CARB activities, four labs in the ARLN receive funding to build capacity for culture-based antimicrobial susceptibility testing and genomic sequencing.

## Gonococcal Isolate Surveillance Project (GISP)

Established in 1986, the Gonococcal Isolate Surveillance Project monitors U.S. antibiotic resistance trends in gonorrhea. Through the collaborative effort of selected STD clinics and their local laboratories, regional laboratories, and CDC, GISP's collected data helps ensure gonorrhea receives the right antibiotic treatment. GISP monitors antimicrobial susceptibility of approximately 5,000 male gonococcal urethritis cases seen in 26 STD clinics.

## Enhanced Gonococcal Isolate Surveillance Project (eGISP)

The Enhanced Gonococcal Isolate Surveillance Project strengthens surveillance of resistant gonorrhea and increases state and local capacity to detect and monitor it. In select STD clinics, eGISP not only collects samples from men with gonococcal urethritis but also from women and from extragenital sites. These specimens are sent to regional laboratories for susceptibility testing.

## The STD Surveillance Network (SSuN)



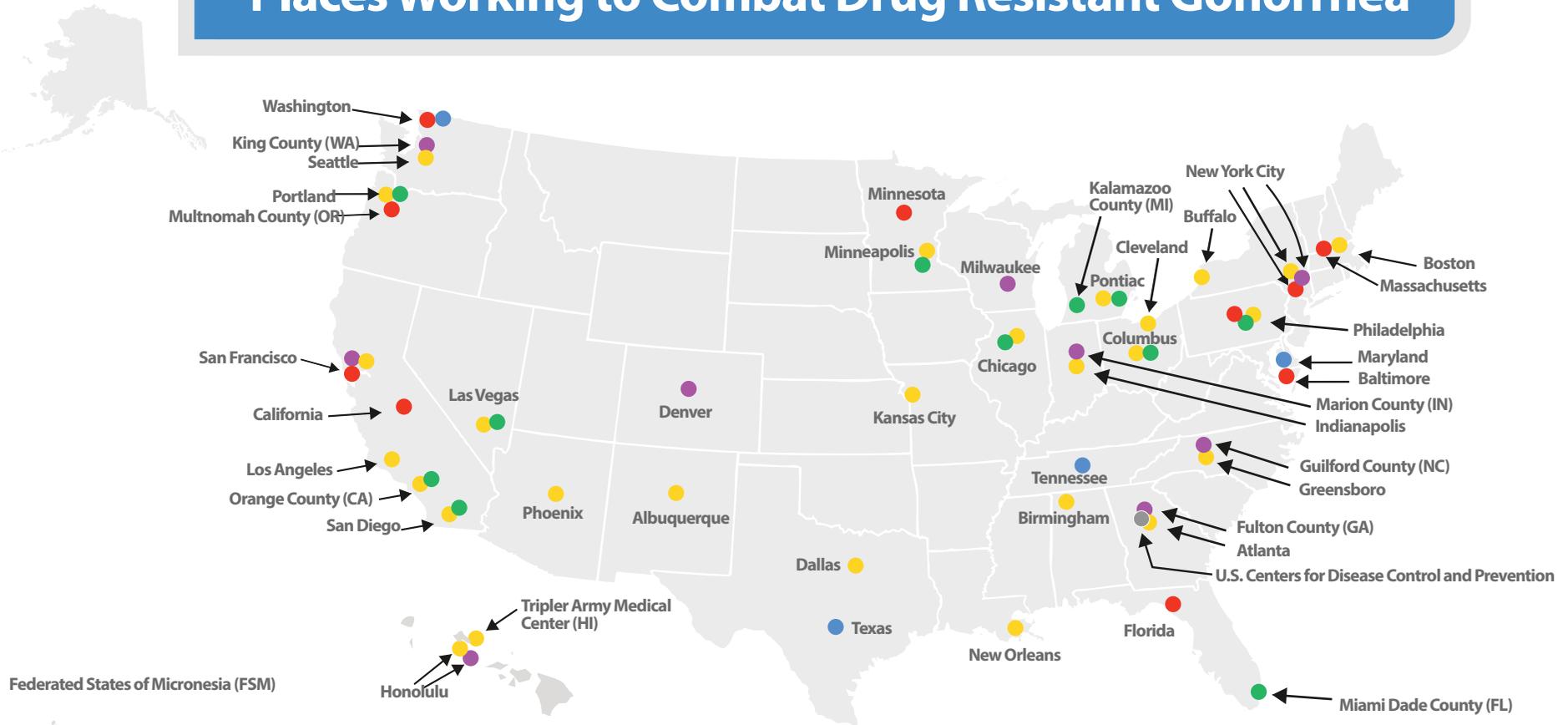
The STD Surveillance Network is a collaborative network of state, county and/or city health departments funded by CDC to conduct sentinel and enhanced STD surveillance activities. The purpose of SSuN is to improve the capacity of national, state and local STD programs to detect, monitor, and respond to trends in STDs through enhanced collection, reporting, analysis, visualization, and interpretation of disease information.

## Strengthening the United States Response to Resistant Gonorrhea (SURRG)



Strengthening the U.S. Response to Resistant Gonorrhea began in 2016 with three goals: 1) enhance domestic antibiotic resistant gonorrhea surveillance and infrastructure; 2) build capacity for rapid detection and response to resistant gonorrhea through increased culturing and local antibiotic susceptibility testing; and 3) conduct rapid field investigations to stop the spread of resistant infections. The project also aims to gain a better understanding of the epidemiological factors contributing to resistant gonorrhea. Nine jurisdictions collect and analyze data, helping guide national recommendations for the public health response to resistant gonorrhea.

# Places Working to Combat Drug Resistant Gonorrhea



ARLN*	SURRG <sup>†</sup> Sites	SSuN <sup>‡</sup> Sites	GISP <sup>§</sup> Sites	eGISP <sup>¶</sup> Sites
<ul style="list-style-type: none"> <li>Maryland</li> <li>Texas</li> <li>Tennessee</li> <li>Washington</li> </ul>	<ul style="list-style-type: none"> <li>Denver</li> <li>Fulton County (GA)</li> <li>Guilford County (NC)</li> <li>Honolulu</li> <li>King County (WA)</li> <li>Marion County (IN)</li> <li>Milwaukee</li> <li>New York City</li> <li>San Francisco</li> </ul>	<ul style="list-style-type: none"> <li>Baltimore</li> <li>California</li> <li>Florida</li> <li>Massachusetts</li> <li>Minnesota</li> <li>Multnomah County (OR)</li> <li>New York City</li> <li>Philadelphia</li> <li>San Francisco</li> <li>Washington</li> </ul>	<ul style="list-style-type: none"> <li>Albuquerque</li> <li>Atlanta</li> <li>Birmingham</li> <li>Boston</li> <li>Buffalo</li> <li>Chicago</li> <li>Cleveland</li> <li>Columbus</li> <li>Dallas</li> <li>Greensboro</li> <li>Honolulu</li> <li>Indianapolis</li> <li>Kansas City</li> <li>Las Vegas</li> <li>Los Angeles</li> <li>Minneapolis</li> <li>New Orleans</li> <li>New York City</li> <li>Orange County (CA)</li> <li>Philadelphia</li> <li>Phoenix</li> <li>Pontiac</li> <li>Portland</li> <li>San Diego</li> <li>San Francisco</li> <li>Seattle</li> <li>Tripler Army Medical Center</li> </ul>	<ul style="list-style-type: none"> <li>Chicago</li> <li>Columbus</li> <li>Federated States of Micronesia (FSM)</li> <li>Kalamazoo County (MI)</li> <li>Las Vegas</li> <li>Miami Dade County (FL)</li> <li>Minneapolis</li> <li>Orange County (CA)</li> <li>Philadelphia</li> <li>Pontiac</li> <li>Portland</li> <li>San Diego</li> </ul>

\*ARLN=Antimicrobial Regional Laboratory Networks  
<sup>†</sup>SURRG=Strengthening the U.S. Response to Resistant Gonorrhoea  
<sup>‡</sup>SSuN=STD Surveillance Network  
<sup>§</sup>GISP=Enhanced Gonococcal Isolate Surveillance Project  
<sup>¶</sup>eGISP=Enhanced Gonococcal Isolate Surveillance Project